

REMARKS

Applicants respectfully request further examination and reconsideration in view of the above amendments and the comments set forth fully below. Claims 1-15 and 19-35 were pending. Within the Office Action, claims 1-15 and 19-35 have been rejected. By the above amendment, claims 44-49 have been added. Claims 1-15, 19-35 and 44-49 are now pending.

Rejections Under 35 U.S.C. § 103

Within the Office Action, claims 1-13, 19-26, 29-32 and 35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant Admitted Prior Art (hereinafter "the AAPA") in view of U.S. Patent No. 6,012,117 to Traw et al. (hereinafter "Traw"). The Applicants respectfully disagree with this rejection. Referring to Figure 2 of the present application for explanatory purposes, the function of the hard disk drive 20 during a read operation is to recreate the original, unmodified stream of data which was previously written on the media 30. When recording such data, the hard disk drive 20 does not necessarily understand or is unable to use the data. The hard disk drive 20 is typically employed to record the data in a manner to preserve the integrity of the data when the data is read and transmitted from the hard disk drive 20 to another device within the IEEE 1394-1995 serial bus network. However, this can be a problem when the hard disk drive 20 has recorded a stream of isochronous data which must be transmitted in packets at appropriate intervals. Especially, when the hard disk drive 20 cannot understand the data and differentiate particular boundaries within the data stream. This makes it difficult for the hard disk drive 20 to record the data and then later retrieve it for transmission over the network in the correct format and order.

Referring now to Figure 4A of the present application which is designated as prior art, and the accompanying description, Source Packets 60-63 are taught, having **Source Headers 68-71** added before transmission. After the **Source Headers 68-71** are added to the Source Packets 60-63, the Source Packets with added Source Headers 64-67 are split into Data Blocks 0-7. These Data Blocks 0-7 make up the data portion 74 of the **packet of data** being prepared for **transmission**. The CIP header 78 and the Isoch header 76 are then added to the data portion 74 of the **packet of data** being prepared for **transmission**. Therefore, within the specification of the present invention, adding a **Source Packet Header 68-71** to Source Packets 60-63 is taught in order to produce a data portion 74 of the packet of data 74-76 that is ready for **transmission**.

As recognized by the Office Action, the specification of the present invention which is designated as prior art does not teach receiving a packet of data. More importantly, the specification of the present invention which is designated as prior art **does not teach adding a**

header to a received packet of data as the packet of data in the specification of the present invention which is designated as prior art is the combination of the data blocks 74, the CIP header 78 and the Isoch header 76, and not merely each source packet 60-61. The specification of the present invention which is designated as prior art also does not teach storing the extended packet of data onto a media within the media storage device.

Traw also does not teach adding a header to a received packet of data thereby forming an extended packet of data. Traw also does not teach storing the extended packet of data onto a media within the media storage device. Accordingly, **neither the specification of the present invention which is designated as prior art, Traw nor their combination teach adding a header to a received packet of data thereby forming an extended packet of data and storing the extended packet of data on to a media within the media storage device.**

In contrast to the teachings of the specification of the present invention which is designated as prior art, Traw and their combination, the method of and apparatus for writing and reading time sensitive data within a storage device of the present invention receives a received packet of data to be written to the media storage device, adds a header to the received packet of data thereby forming an extended packet of data, and stores the extended packet of data onto a media within the media storage device. Referring to Figure 4B of the present application, the received packet of data 80 includes the Isoch header, the CIP header and the data blocks, as described previously. However, after receipt of the packet of data, the present invention adds the Meta-Data Header 82, in contrast to the configuration described in either the specification of the present invention which is designated as prior art, Traw, or their combination. As described above, neither the specification of the present invention which is designated as prior art, Traw nor their combination teach receiving a received packet of data to be written to the media storage device, adding a header to the received packet of data thereby forming an extended packet of data and storing the extended packet of data onto a media within the media storage device.

The independent claim 1 is directed to a method of writing data to a media storage device. The method of claim 1 comprises receiving a received packet of data to be written to the media storage device, adding a header to the received packet of data thereby forming an extended packet of data and storing the extended packet of data onto a media within the media storage device. As described above, neither the specification of the present invention which is designated as prior art, Traw nor their combination teach adding a header to the received packet of data thereby forming an extended packet of data and storing the extended packet of data onto a media within the media storage device. For at least these reasons, the independent claim 1 is

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allowable over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination.

Claims 2-7 are all dependent on the independent claim 1. As discussed above, the independent claim 1 is allowable over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination. Accordingly, the dependent claims 2-7 are all also allowable as being dependent on an allowable base claim.

The independent claim 8 is directed to a method of reading data from a media storage device which has previously been stored with header data generated by the media storage device. The method of claim 8 comprises locating a first header data, including a cycle mark value having a pattern, reading a previously stored packet of data following the first header data from a media within the media storage device, stripping the first header data from the previously stored packet of data thereby forming a retrieved packet of data and transmitting the retrieved packet of data to another device. As described above, neither the specification of the present invention which is designated as prior art, Traw nor their combination teach locating a first header data, including a cycle mark value having a pattern, reading a previously stored packet of data following the first header data from a media within the media storage device, stripping the first header data from the previously stored packet of data thereby forming a retrieved packet of data and transmitting the retrieved packet of data to another device. For at least these reasons, the independent claim 8 is allowable over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination.

Claims 9-13 are all dependent on the independent claim 8. As discussed above, the independent claim 8 is allowable over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination. Accordingly, the dependent claims 9-13 are all also allowable as being dependent on an allowable base claim.

The independent claim 19 is directed to a meta data header added to received packets by a media storage device as the packets are recorded on storage media within the media storage device. The meta data header of claim 19 comprises a cycle mark value including a pattern used to locate cycle boundaries within the received packets and a cycle count value specifying a cycle number of a cycle in which the received packets are received. As described above, neither the specification of the present invention which is designated as prior art, Traw nor their combination teach a cycle mark value including a pattern used to locate cycle boundaries within the received packets and a cycle count value specifying a cycle number of a cycle in which the received packets are received. For at least these reasons, the independent claim 19 is allowable

over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination.

Claims 20-23 are all dependent on the independent claim 19. As discussed above, the independent claim 19 is allowable over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination. Accordingly, the dependent claims 20-23 are all also allowable as being dependent on an allowable base claim.

The independent claim 24 is directed to a media storage device. The media storage device of claim 24 comprises a means for interfacing configured for receiving a stream of data, thereby forming a received stream of data, and also for transmitting a retrieved stream of data, means for storing data for storing and retrieving the received stream of data and means for processing coupled to the means for interfacing and to the means for storing for adding header data to the received stream of data as the received stream of data is received and providing the header data and the received stream of data to the means for storing for recording thereby forming a recorded stream of data, the header data including a cycle mark value marking cycle boundaries within the recorded stream of data. As described above, neither the specification of the present invention which is designated as prior art, Traw nor their combination teach a means for interfacing configured for receiving a stream of data, thereby forming a received stream of data, and also for transmitting a retrieved stream of data, means for storing data for storing and retrieving the received stream of data and means for processing coupled to the means for interfacing and to the means for storing for adding header data to the received stream of data as the received stream of data is received and providing the header data and the received stream of data to the means for storing for recording thereby forming a recorded stream of data, the header data including a cycle mark value marking cycle boundaries within the recorded stream of data. For at least these reasons, the independent claim 24 is allowable over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination.

Claims 25, 26 and 29 are all dependent on the independent claim 24. As discussed above, the independent claim 24 is allowable over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination. Accordingly, the dependent claims 25, 26 and 29 are all also allowable as being dependent on an allowable base claim.

The independent claim 30 is directed to a media storage device. The media storage device of claim 30 comprises an interface circuit configured to receive a stream of data, thereby forming a received stream of data, and also to transmit a retrieved stream of data, storage media

configured to store and retrieve the received stream of data and an embedded stream processor coupled to the interface circuit and to the storage media to add header data to the received stream of data as it is received and provide the header data and the received stream of data to the storage media for recording to form a recorded stream of data, the header data including a cycle mark value marking cycle boundaries within the recorded stream of data. As described above, neither the specification of the present invention which is designated as prior art, Traw nor their combination teach an interface circuit configured to receive a stream of data, thereby forming a received stream of data, and also to transmit a retrieved stream of data, storage media configured to store and retrieve the received stream of data and an embedded stream processor coupled to the interface circuit and to the storage media to add header data to the received stream of data as it is received and provide the header data and the received stream of data to the storage media for recording to form a recorded stream of data, the header data including a cycle mark value marking cycle boundaries within the recorded stream of data. For at least these reasons, the independent claim 30 is allowable over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination.

Claims 31, 32 and 35 are all dependent on the independent claim 30. As discussed above, the independent claim 30 is allowable over the teachings of the specification of the present invention which is designated as prior art, Traw and their combination. Accordingly, the dependent claims 31, 32 and 35 are all also allowable as being dependent on an allowable base claim.

Claims 14, 15, 27, 28, 33 and 34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the AAPA in view of Traw as applied to claim 1 above, and further in view of U.S. Patent No. 6,438,604 to Kuver et al. (hereinafter "Kuver"). Claims 14 and 15 are dependent on independent claim 8. Claims 27 and 28 are dependent on independent claim 24. Claims 33 and 34 are dependent on independent claim 30. As discussed above, the independent claims 8, 24 and 30 are allowable over the teachings of the AAPA, Traw and their combination. Accordingly, the dependent claims 14, 15, 27, 28, 33 and 34 are all also allowable as being dependent on an allowable base claim.

For the reasons given above, Applicants respectfully submit that the claims are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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